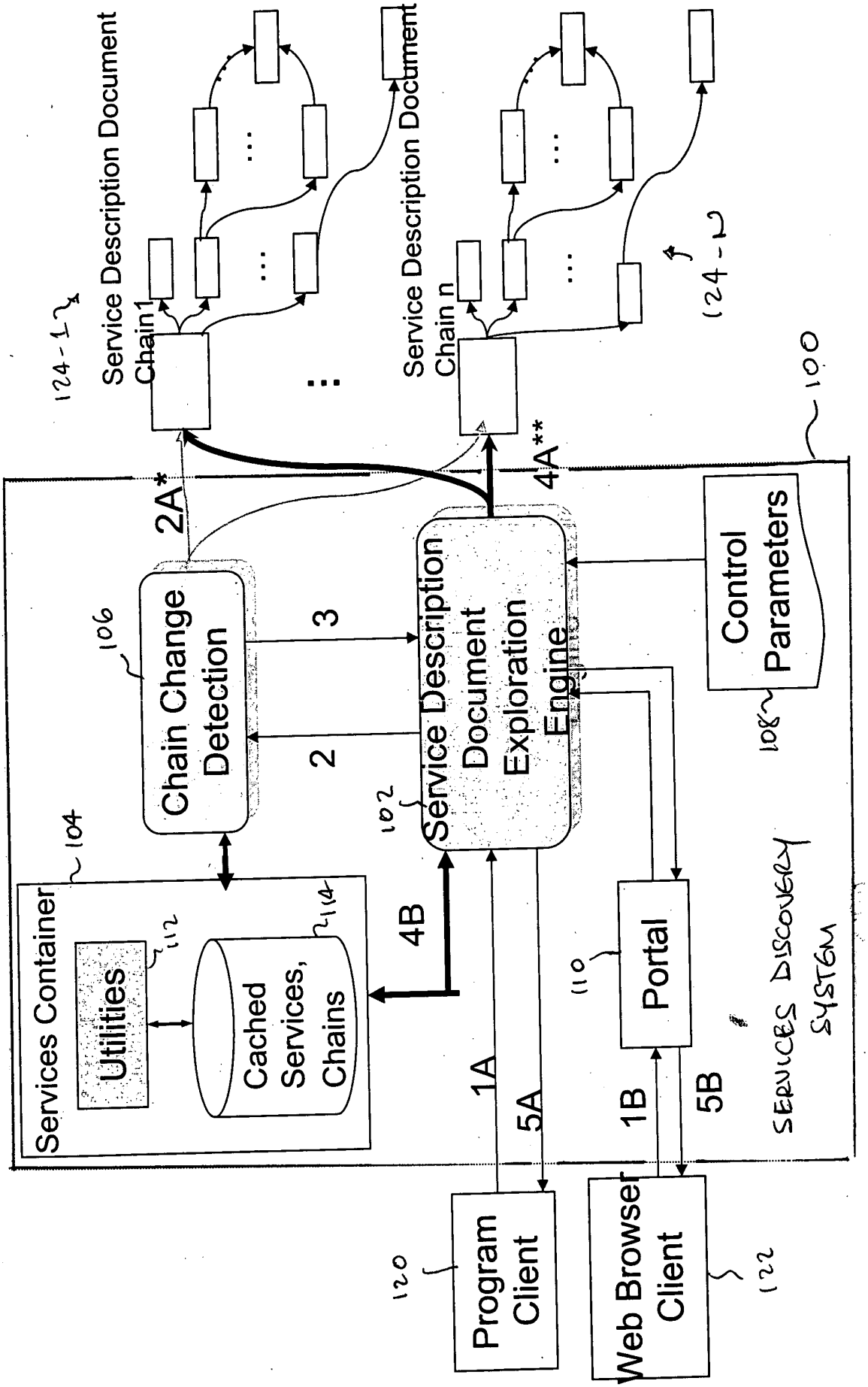
FIG. 1


Service Description Document Chain 1
124-1
Service Description Document Chain n
124-n
100
2A*
4A**
Chain Change Detection
106
3
2
Service Description Document Exploration Engine
102
Control Parameters
108
Services Container
104
Utilities
112
Cached Services, Chains
114
4B
1A
5A
1B
5B
Portal
110
Program Client
120
Web Browser Client
122
SERVICES DISCOVERY SYSTEM

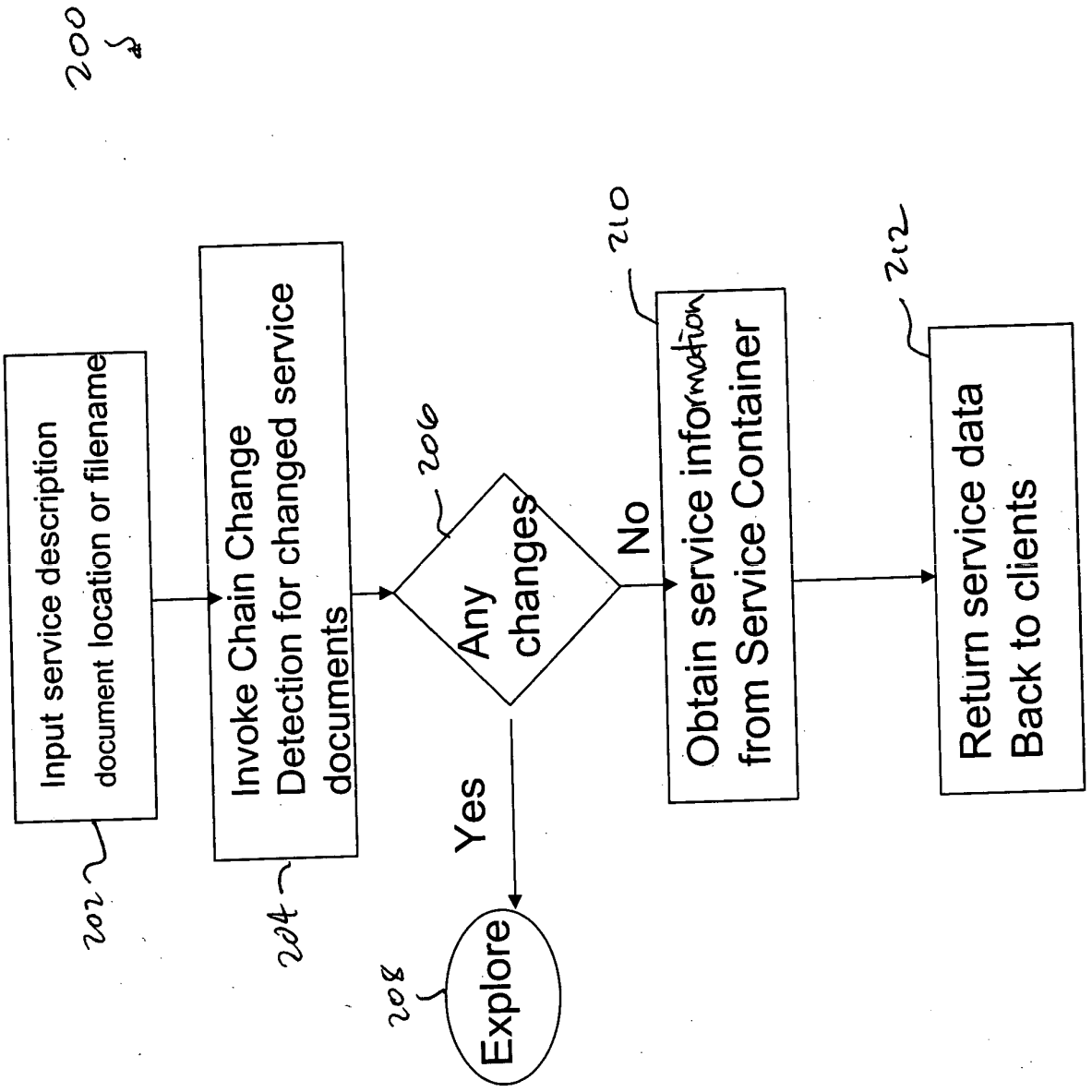
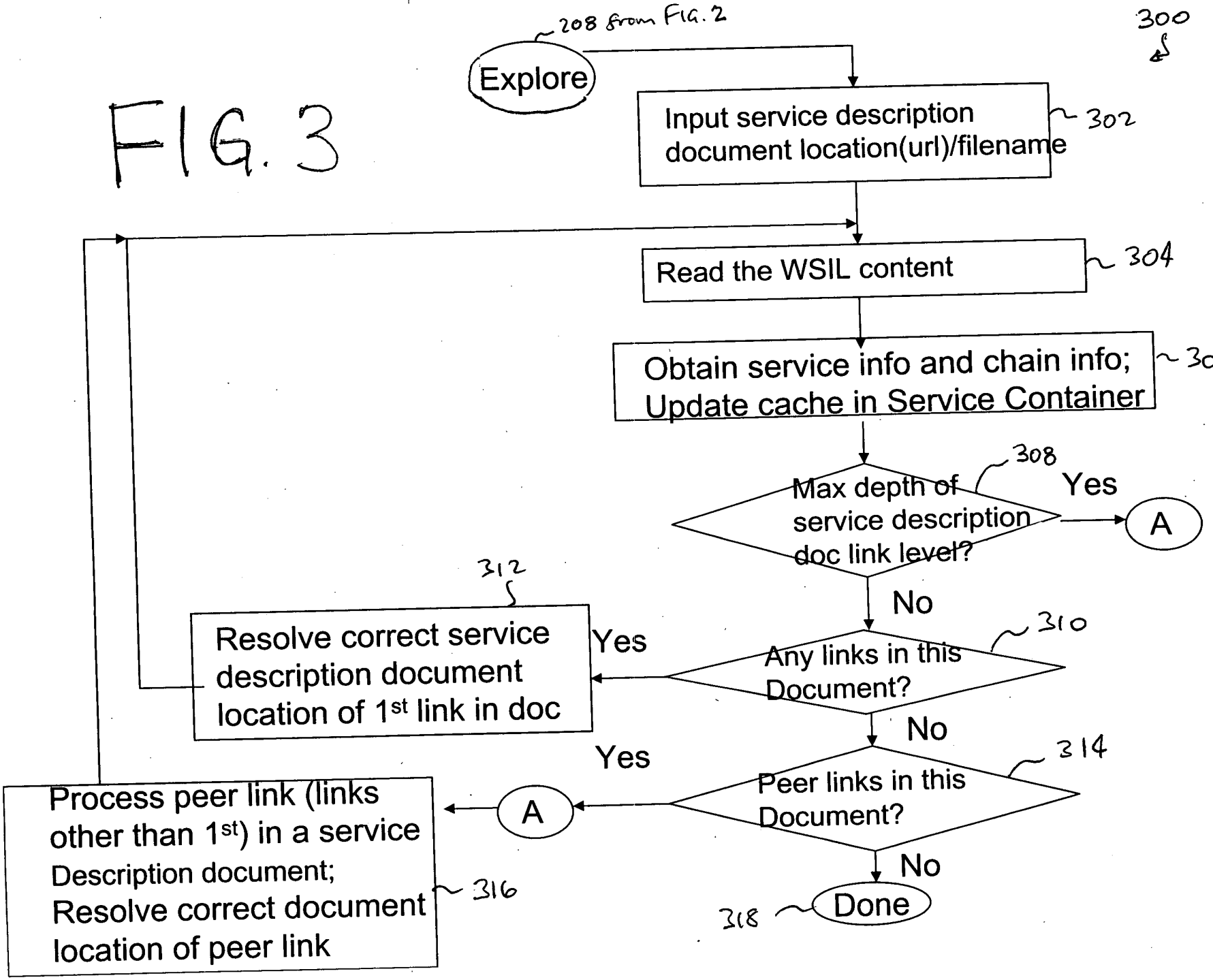

200
Input service description
document location or filename
202
Invoke Chain Change
Detection for changed service
documents
204
206
Any
changes
Yes
208
Explore
No
210
Obtain service information
from Service Container
212
Return service data
Back to clients

FIG. 2

FIG. 3


208 from Fig. 2
Explore
300
Input service description document location(url)/filename
302
Read the WSIL content
304
Obtain service info and chain info; Update cache in Service Container
306
Max depth of service description doc link level?
308
Yes
A
No
Any links in this Document?
310
Yes
Resolve correct service description document location of 1st link in doc
312
No
Peer links in this Document?
314
Yes
A
Process peer link (links other than 1st) in a service Description document; Resolve correct document location of peer link
316
No
Done
318

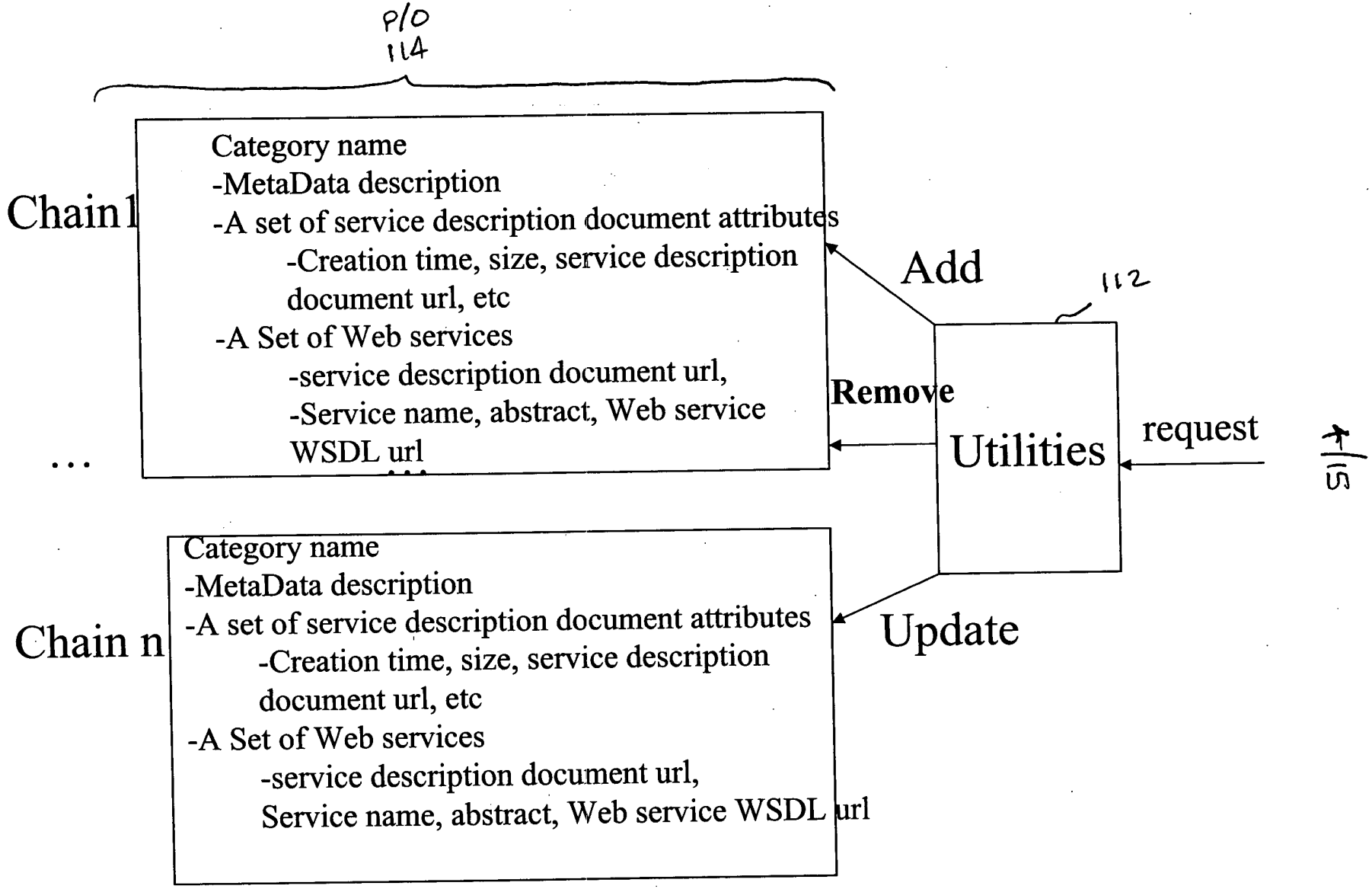

P/O
114
Chain 1
Category name
-MetaData description
-A set of service description document attributes
-Creation time, size, service description document url, etc
-A Set of Web services
-service description document url,
-Service name, abstract, Web service WSDL url
...
Chain n
Category name
-MetaData description
-A set of service description document attributes
-Creation time, size, service description document url, etc
-A Set of Web services
-service description document url,
Service name, abstract, Web service WSDL url
Add
Remove
Update
112
Utilities
request
115

FIG. 4

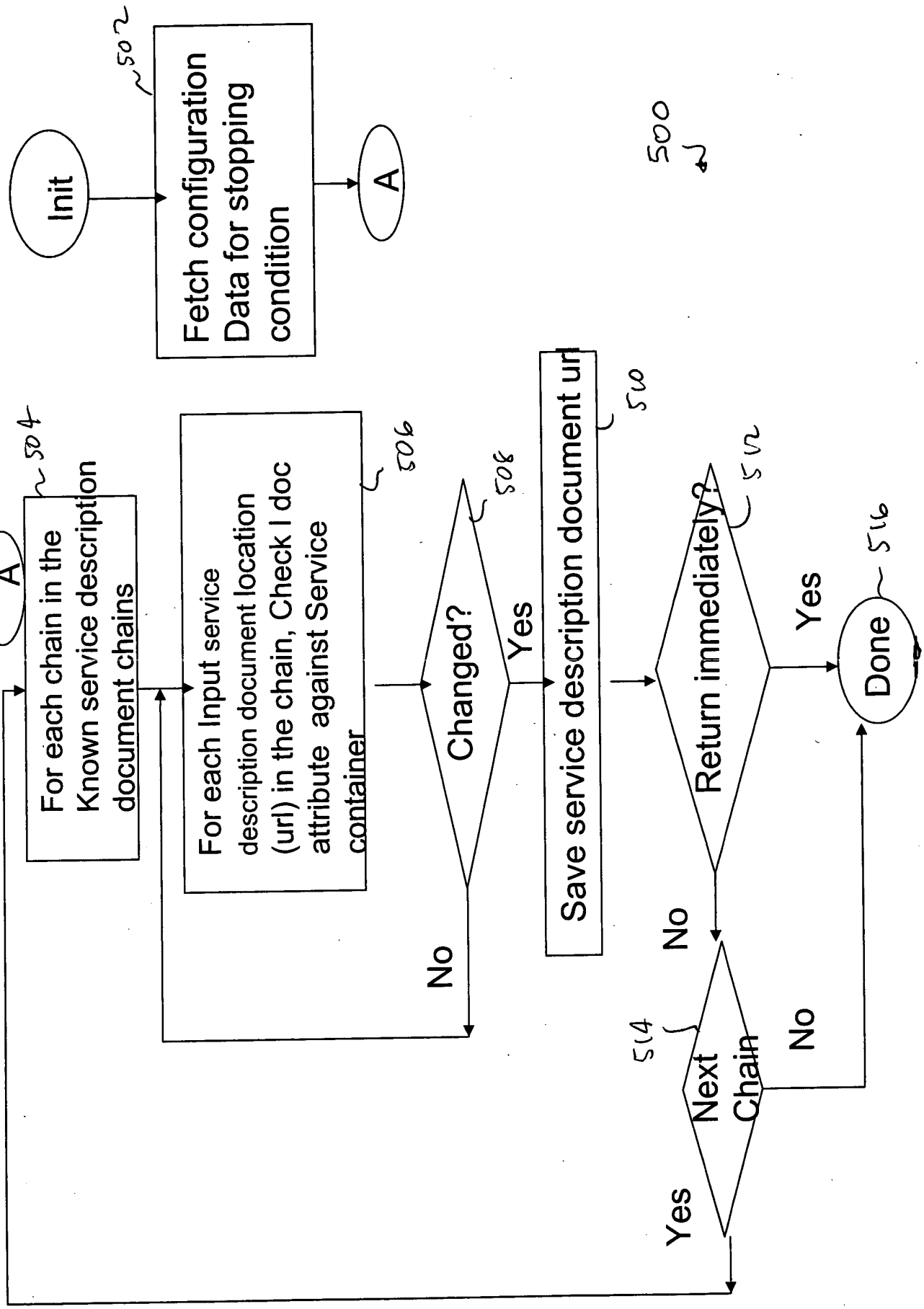

Init
502
Fetch configuration Data for stopping condition
A
500
A
504
For each chain in the Known service description document chains
For each Input service description document location (url) in the chain, Check I doc attribute against Service container
506
Changed?
508
No
Yes
Save service description document url
510
Return immediately?
512
Yes
Done
516
No
514
Next Chain
No
Yes

FIG. 5

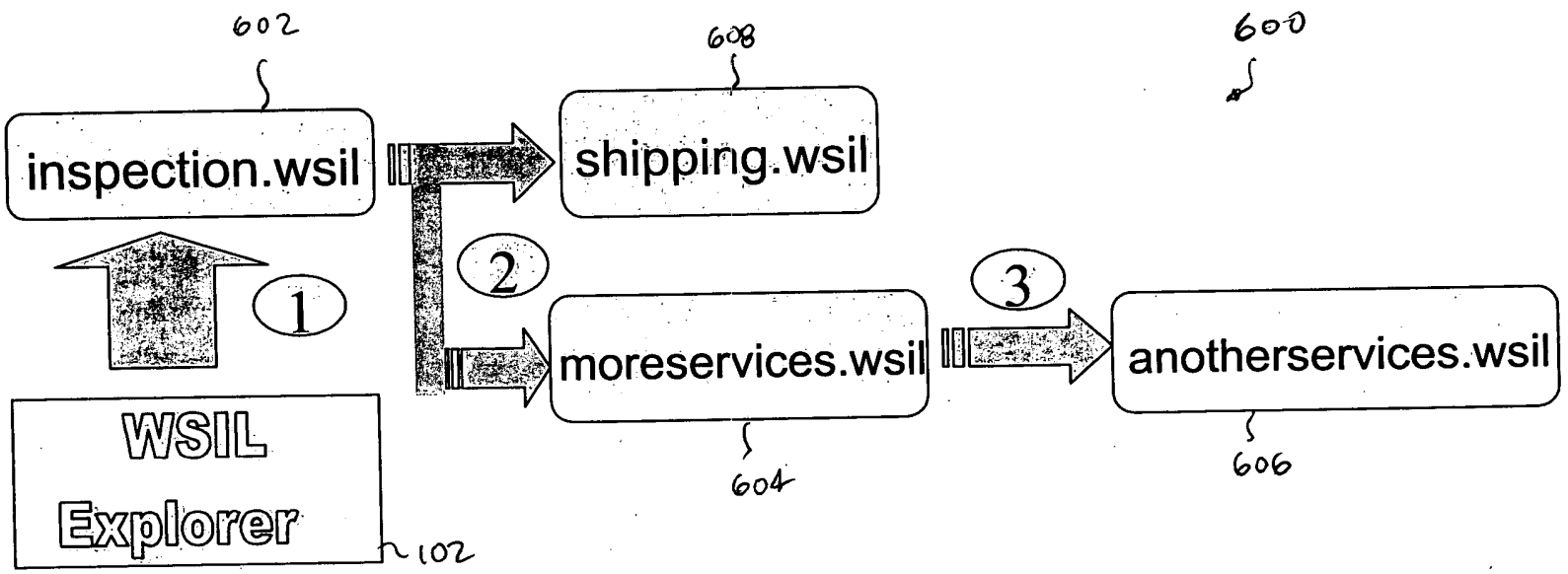

602
608
600
inspection.wsil
shipping.wsil
1
2
3
moreservices.wsil
anotherservices.wsil
WSIL
Explorer
102
604
606

FIG. 6

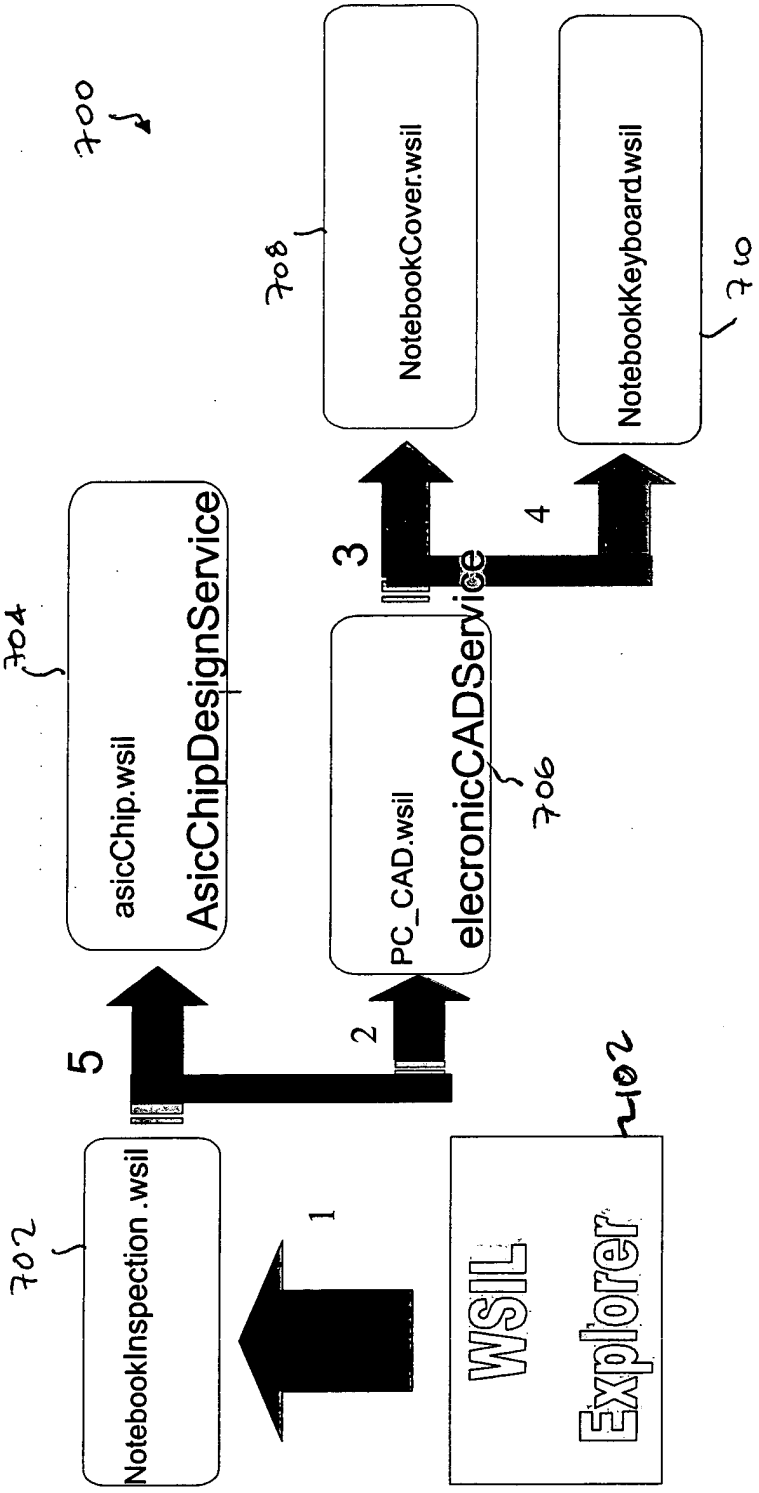

700
NotebookInspection .wsil
702
WSIL
Explorer
402
1
5
2
asicChip.wsil
AsicChipDesignService
704
PC_CAD.wsil
elecronicCADService
706
3
4
NotebookCover.wsil
708
NotebookKeyboard.wsil
710

FIG. 7

FIG. 8

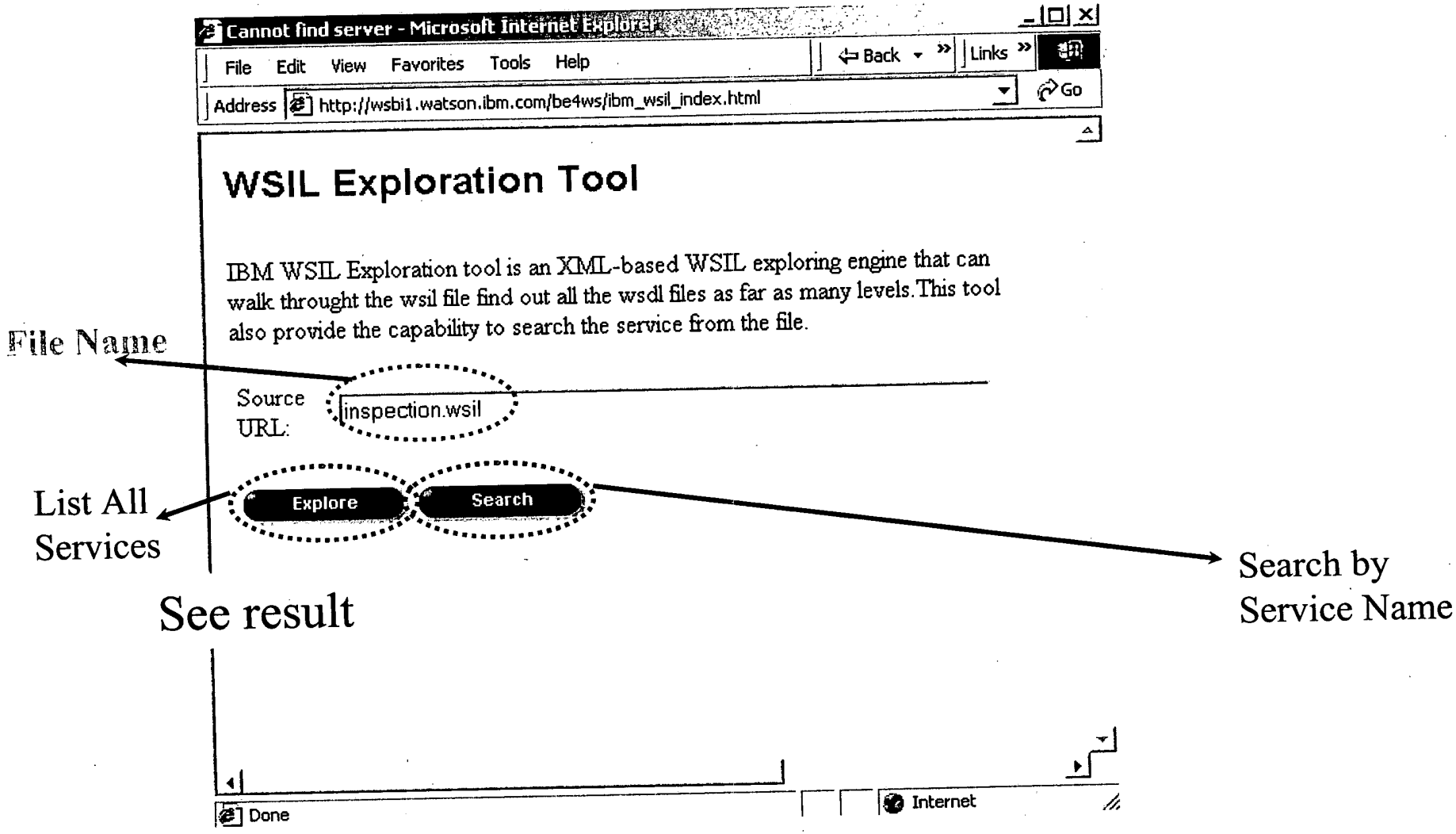
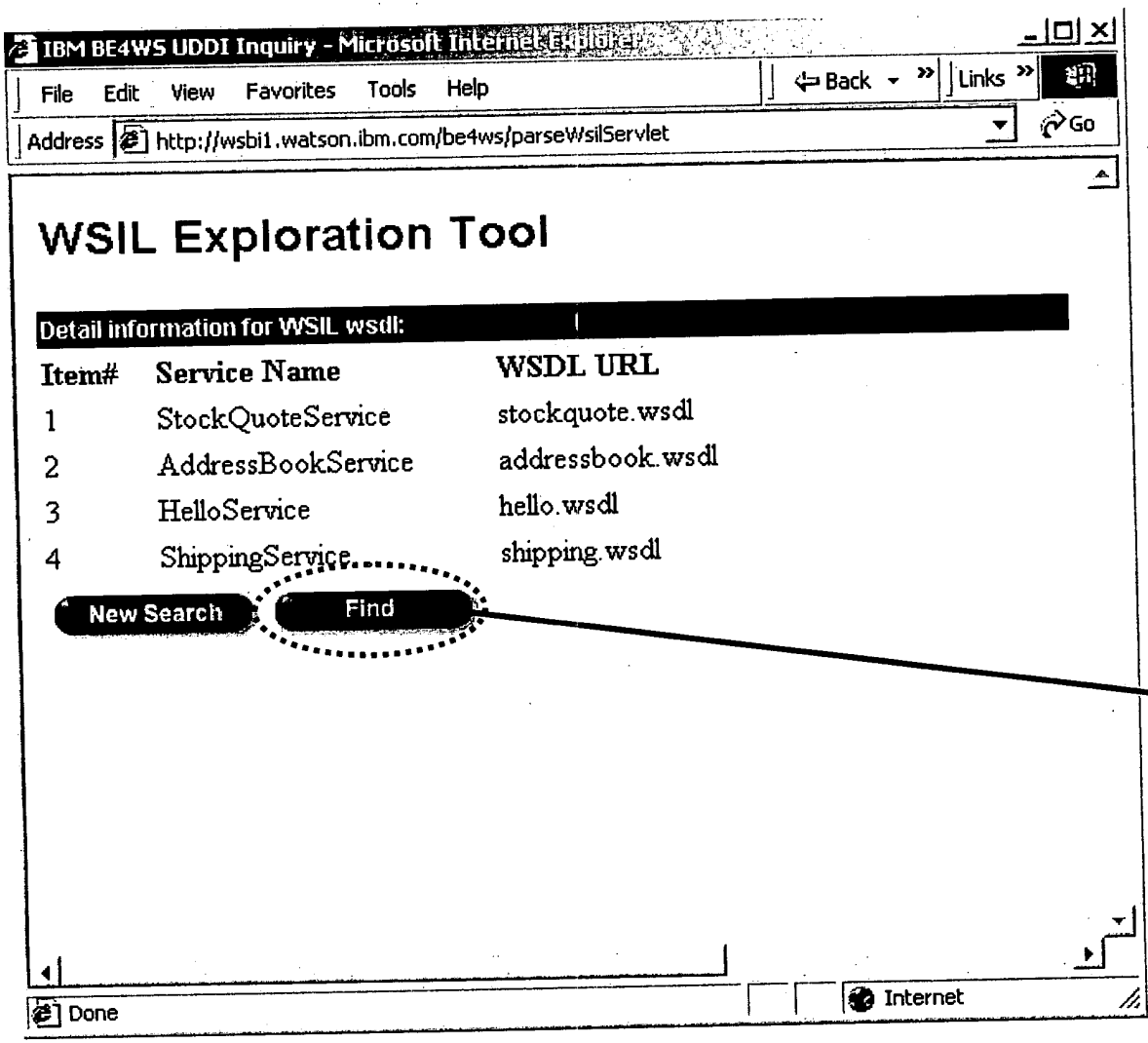
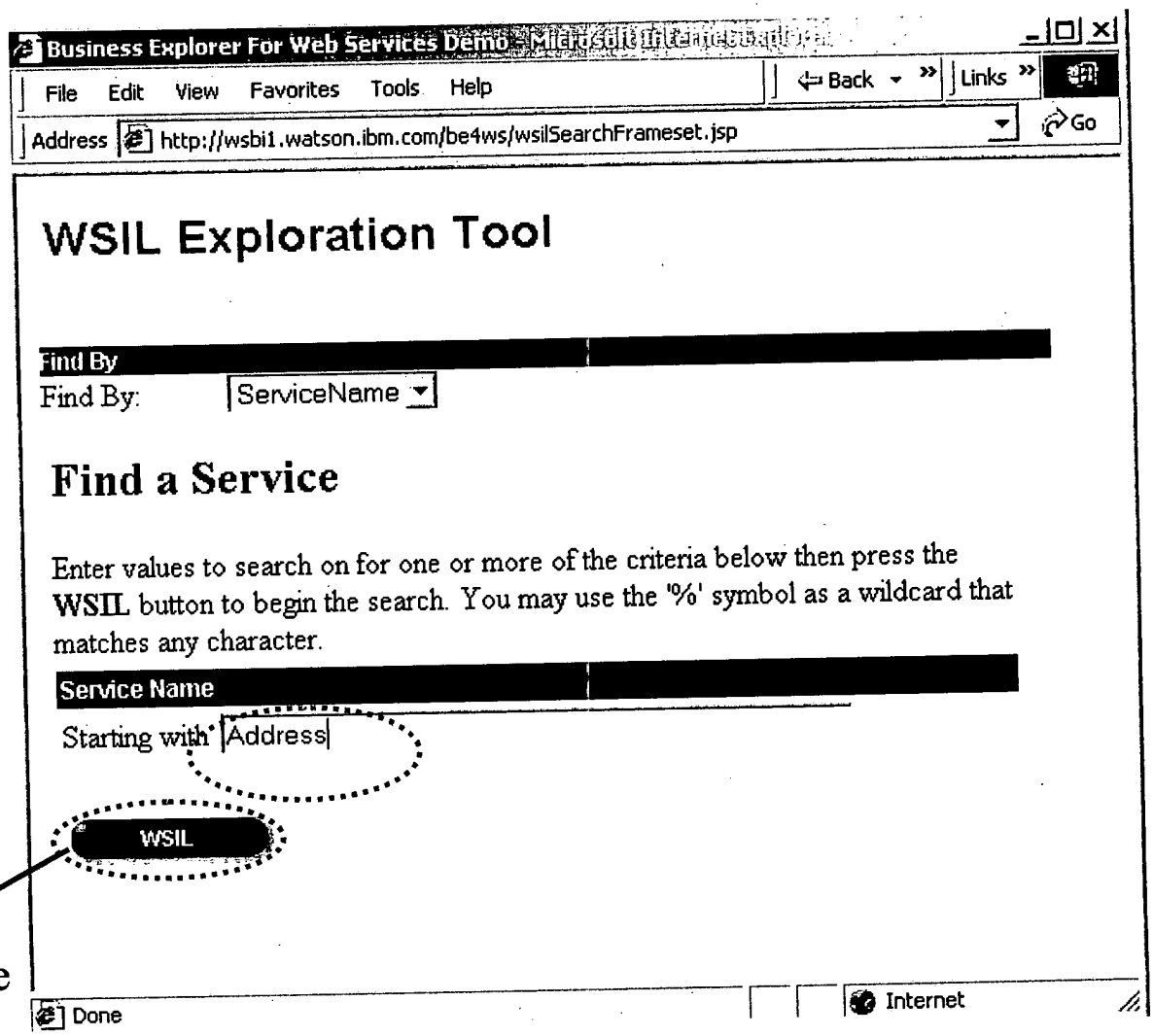

Cannot find server - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Links
Address
http://wsbi1.watson.ibm.com/be4ws/ibm_wsil_index.html
Go
WSIL Exploration Tool
IBM WSIL Exploration tool is an XML-based WSIL exploring engine that can walk throught the wsil file find out all the wsdl files as far as many levels.This tool also provide the capability to search the service from the file.
File Name
Source URL:
inspection.wsil
List All Services
Explore
Search
Search by Service Name
See result
Done
Internet

FIG. 9



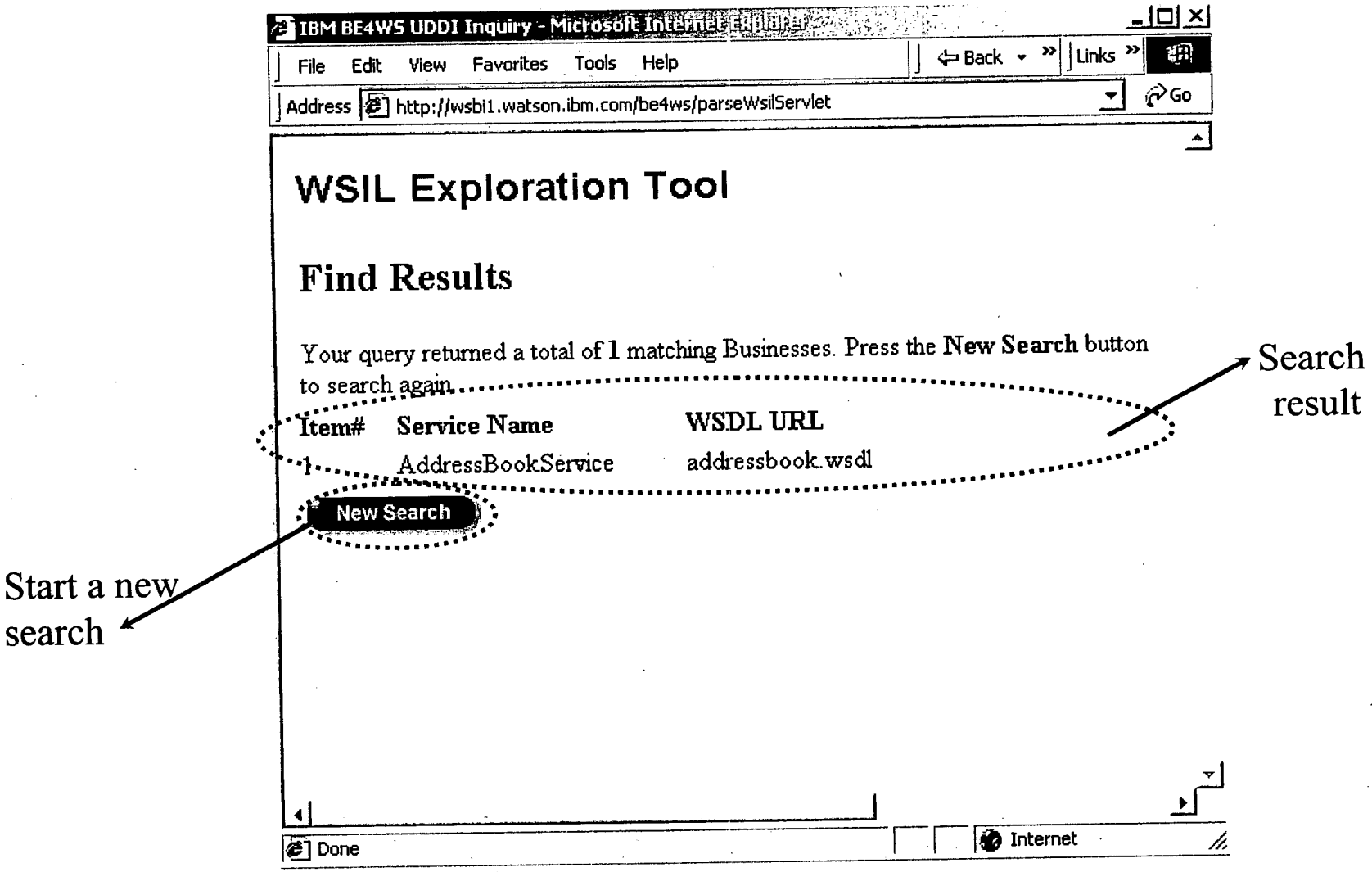

Search by Service Name

FIG. 10




Invoke WSIL Explorer Engine

FIG. 11


IBM BE4WS UDDI Inquiry - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Links
Address
http://wsbi1.watson.ibm.com/be4ws/parseWsilServlet
Go
WSIL Exploration Tool
Find Results
Your query returned a total of 1 matching Businesses. Press the New Search button to search again.
Item# Service Name WSDL URL
1 AddressBookService addressbook.wsdl
New Search
Search result
Start a new search
Done
Internet

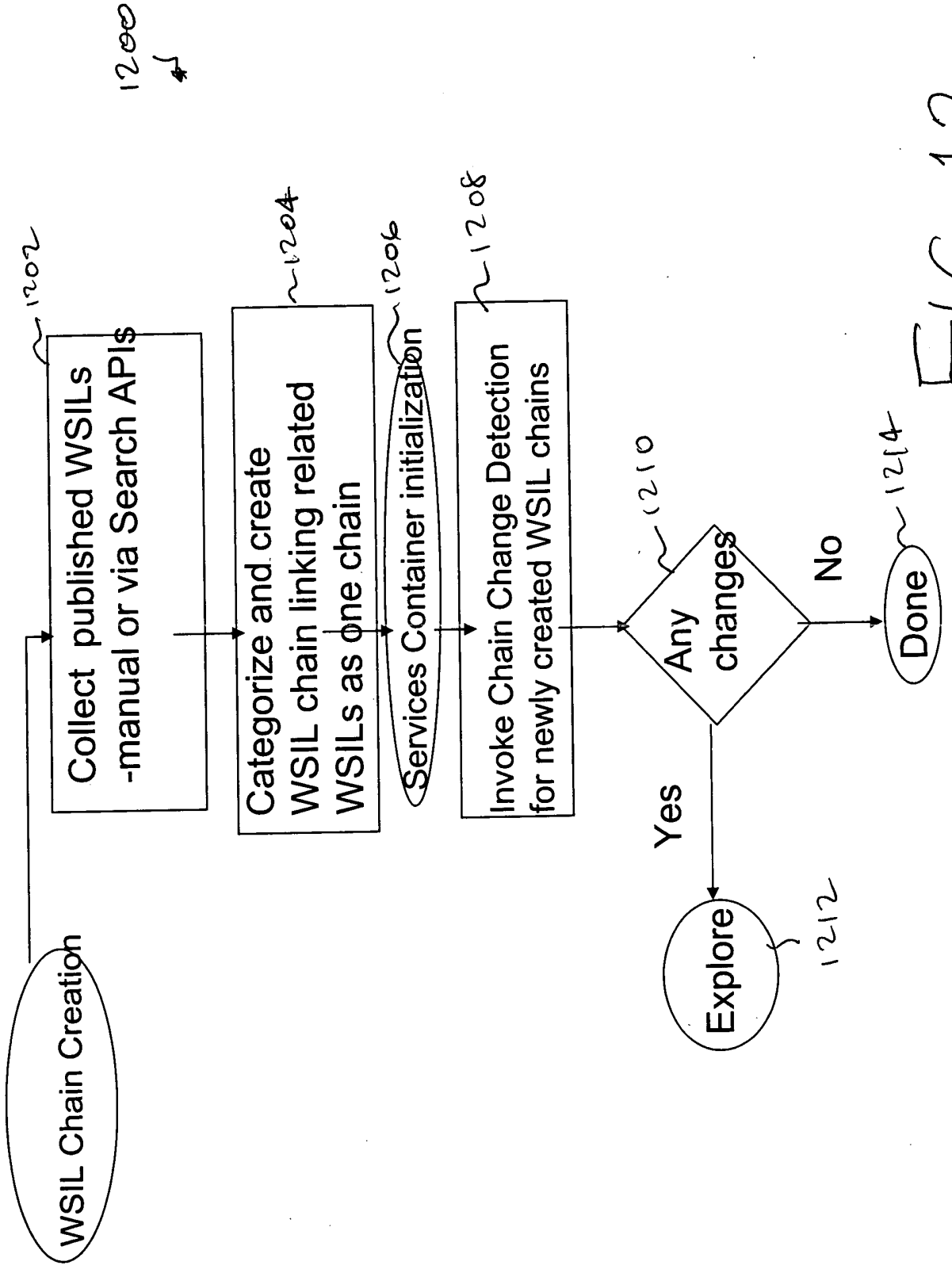

1200
WSIL Chain Creation
Collect published WSILs -manual or via Search APIs
1202
Categorize and create WSIL chain linking related WSILs as one chain
1204
Services Container initialization
1206
Invoke Chain Change Detection for newly created WSIL chains
1208
Any changes
1210
Yes
No
Explore
1212
Done
1214

FIG. 12

FIG. 13

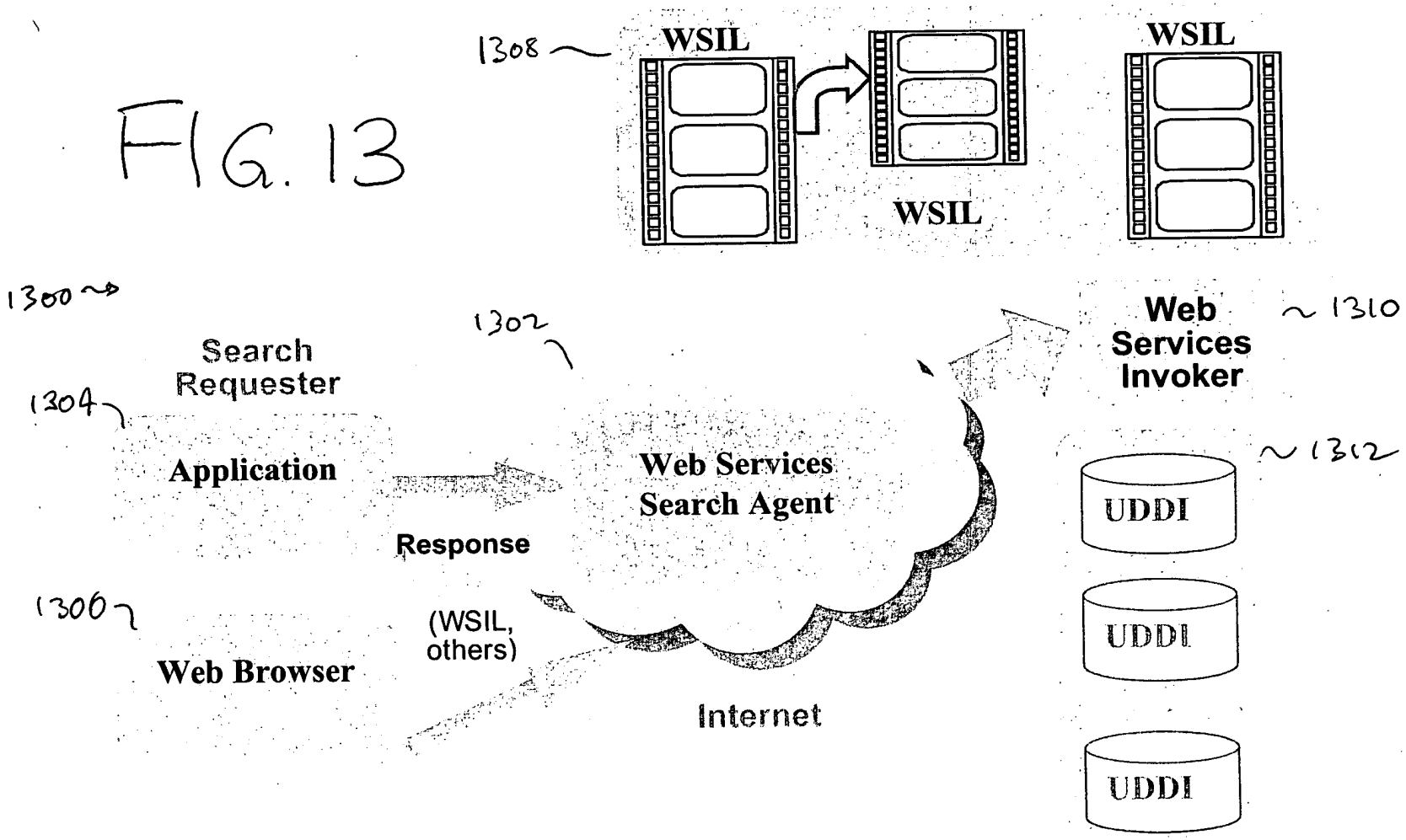
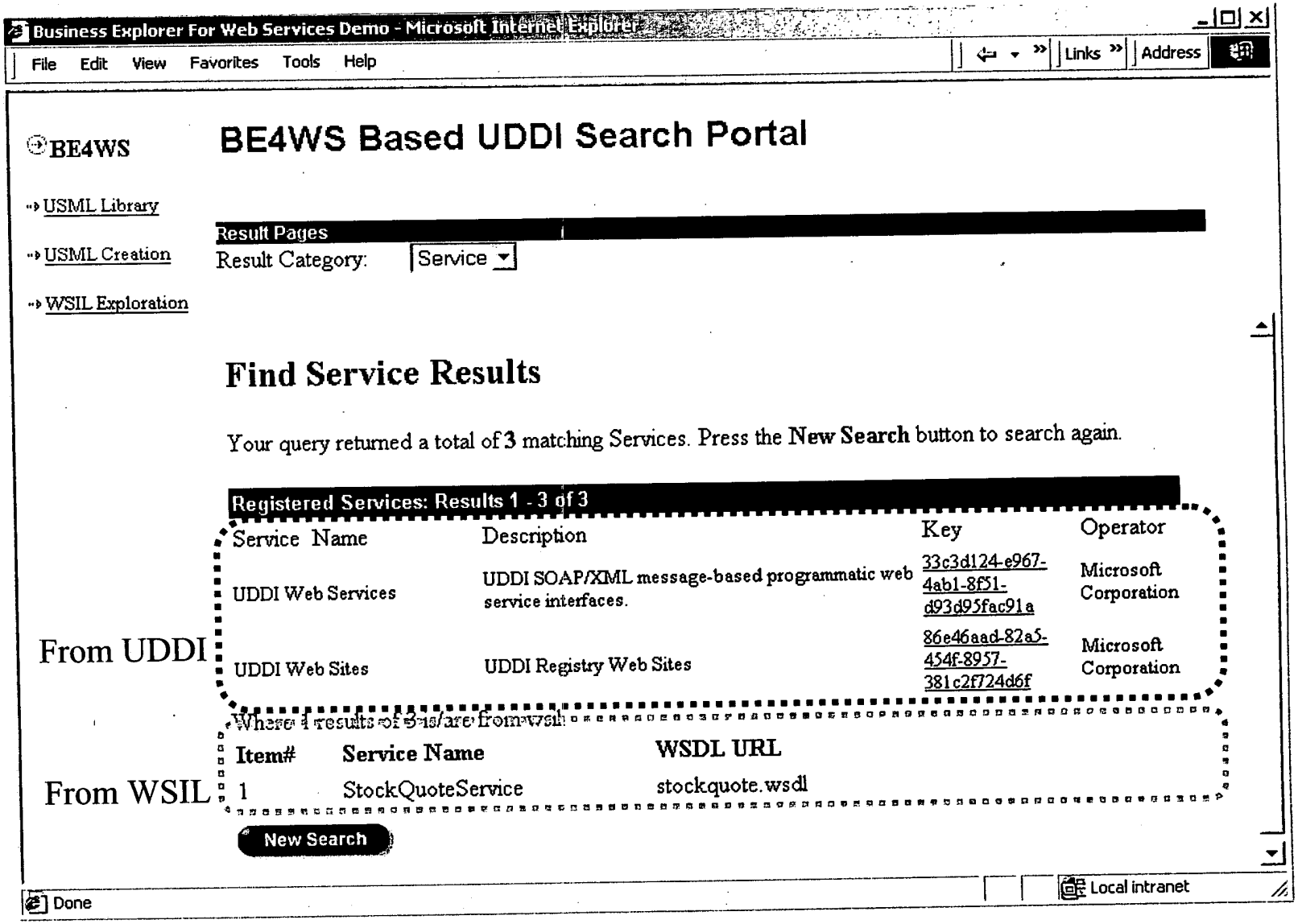

1308
WSIL
WSIL
WSIL
1300
1302
Search Requester
1304
Application
Response
1306
Web Browser
(WSIL, others)
Internet
Web Services Search Agent
Web Services Invoker
1310
1312
UDDI
UDDI
UDDI

FIG. 14


Business Explorer For Web Services Demo - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Links
Address
BE4WS
BE4WS Based UDDI Search Portal
USML Library
USML Creation
WSIL Exploration
Result Pages
Result Category: Service
Find Service Results
Your query returned a total of 3 matching Services. Press the New Search button to search again.
Registered Services: Results 1 - 3 of 3
Service Name
Description
Key
Operator
UDDI Web Services
UDDI SOAP/XML message-based programmatic web service interfaces.
33c3d124-e967-4ab1-8f51-d93d95fac91a
Microsoft Corporation
UDDI Web Sites
UDDI Registry Web Sites
86e46aad-82a5-454f-8957-381c2f724d6f
Microsoft Corporation
From UDDI
Where 1 results of 3 is/are from wsil
Item#
Service Name
WSDL URL
1
StockQuoteService
stockquote.wsdl
From WSIL
New Search
Done
Local intranet

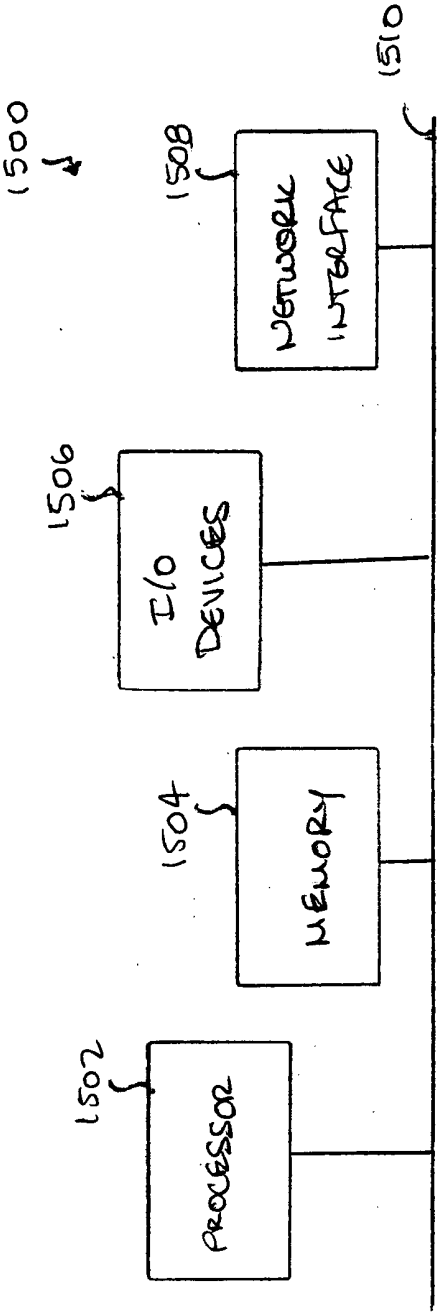

1500
1502
PROCESSOR
1504
MEMORY
1506
I/O DEVICES
1508
NETWORK INTERFACE
1510

FIG. 15